

Applic. No. 10/573,539
Amdt. dated December 27, 2007
Reply to Office action of November 2, 2007

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Claim Amendments

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 13 (cancelled).

Claim 14 (currently amended): An optical module, comprising:

a circuit carrier;

a non-packaged semiconductor device flip-chip mounted on said circuit carrier;

a lens unit disposed for projecting electromagnetic radiation onto said semiconductor device, said lens unit including a lens holder and a lens assembly with at least one lens; and

said circuit carrier having at least one relatively thin region and a relatively thick region supporting said thin region, said thin region and said thick region being implemented as a molded interconnect device with integrated conductor tracks.

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Claim 15 (previously presented): The optical module according to claim 14, wherein said lens holder is supported in said thin region of said circuit carrier.

Claim 16 (previously presented): The optical module according to claim 14, wherein said semiconductor device is disposed in or adjacent said thin region of said circuit carrier.

Claim 17 (currently amended): The optical module according to claim 14, wherein said thick [[thick]] region is at least partially U-shaped, L-shaped, F-forked, or E-forked or frame-shaped.

Claim 18 (currently amended): The optical module according to [[to]] claim 14, wherein said thick region is a rigid portion of said circuit carrier.

Claim 19 (currently amended): The optical module according to [[to]] claim 18, wherein said thick region is a rigid portion of a multilayer printed circuit board.

Claim 20 (currently amended): The optical module according to [[to]] claim 18, wherein said thick region is a rigid portion of an FR4 circuit board.

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Claim 21 (currently amended) : The optical module according to [[to]] claim 14, wherein said thin region is a recessed or milled-out portion of said circuit carrier.

Claim 22 (cancelled).

Claim 23 (currently amended) : The optical module according to [[to]] claim 14, wherein said thin region is a flexible printed circuit board and said thick region is a rigid printed circuit board.

Claim 24 (currently amended) : The optical module according to [[to]] claim 14, which further comprises support elements at least partially formed on said lens holder.

Claim 25 (currently amended) : The optical module according to [[to]] claim 14, wherein said lens holder is connected, in particular glued, laser-welded, screwed or riveted, to said circuit carrier, preferably adjacently to the support elements.

Claim 26 (currently amended) : The optical module according to [[to]] claim 25, wherein said lens holder is glued, laser-welded, screwed, or riveted to said circuit carrier.

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Claim 27 (currently amended): The optical module according to [[to]] claim 25, wherein said lens holder is connected to said circuit carrier adjacent support elements mounted to said lens holder.

Claim 28 (currently amended): The optical module according to [[to]] claim 14, wherein said thick region of said circuit carrier forms a part of said lens unit.

Claim 29 (currently amended): The optical module according to [[to]] claim 28, wherein said thick region of said circuit carrier forms a part of said lens holder and said lens holder is an MID (molded interconnect device) with integrated conductor tracks.

Claim 30 (currently amended): The optical module according to [[to]] claim 14, wherein:

 said semiconductor device is disposed on a side of said circuit carrier facing away from said lens unit; and

 said thin region of said circuit carrier is formed with an opening enabling through-projection of electromagnetic radiation from said lens assembly onto said semiconductor device.

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Claim 31 (previously presented): An optical system,
comprising at least one optical module according to claim 14.